



**AMENDMENTS TO THE CLAIMS:**

Please cancel claims 10 and 35-38, without prejudice, and amend claims 9, 23 and 24, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

**Claim 1 (canceled)**

**Claim 2 (previously presented):** A thermocouple junction box as claimed in claim 8, wherein said cup is electrically connected to a thermocouple sensing junction.

**Claim 3 (previously presented):** A thermocouple junction box as claimed in claim 8, wherein said stud is threaded.

**Claim 4 (previously presented):** A thermocouple junction box as claimed in claim 8, wherein said cup comprises type K metal.

**Claim 5 (previously presented):** A thermocouple junction box as claimed in claim 8, wherein said stud comprises stainless steel.

**Claim 6 (canceled)**

**Claim 7 (canceled)**

**Claim 8 (previously presented):** A thermocouple junction box comprising:  
a metallic cup electrically connected to a thermocouple sensing junction;  
a stud disposed, at least in part, within said cup, said stud being electrically isolated from said cup, and  
a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud,

HAYES SOLOWAY P.C.  
130 W. CUSHING STREET  
TUCSON, AZ 85701  
TEL. 520.882.7623  
FAX. 520.882.7643

175 CANAL STREET  
MANCHESTER, NH 03101  
TEL. 603.668.1400  
FAX. 603.668.8567

wherein said conductive element is a washer or lug, and

wherein said conductive element comprises a non-conductive portion, said non-conductive portion being in contact with said stud when said conductive element is disposed on said stud.

**Claim 9 (currently amended):** A thermocouple junction box-comprising:

a metallic cup electrically connected to a thermocouple sensing junction;

a stud disposed, at least in part, within said cup, said stud being electrically isolated from said cup, and

a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud, wherein said conductive element comprises a non-conductive portion, said non-conductive portion being in contact with said stud when said conductive element is disposed on said stud, and

an insulating element independently movably disposed along said stud with respect to said conductive element, said insulating element electrically isolating said conductive element from said stud,

wherein said conductive element is a washer or lug.

**Claims 10 and 11 (cancelled)**

**Claim 12 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said stud is connected to said contact element by means of friction or interference fit with said insulating material or by means of oxide bonding.

**Claim 13 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said stud is connected to said contact element by means of brazing or welding to said insulating material.

**Claim 14 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said insulating material has an annular shape.

**Claim 15 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said contact element comprises type K metal.

**Claim 16 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said stud comprises stainless steel.

**Claim 17 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said contact element is cup-shaped.

**Claim 18 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said contact element is connected to a thermocouple sensing junction.

**Claim 19 (previously presented):** A thermocouple junction box as claimed in claim 22, wherein said stud is threaded.

**Claim 20 (canceled)**

**Claim 21 (canceled)**

**Claim 22 (previously presented):** A thermocouple junction box comprising:  
a metallic contact element electrically connected to a thermocouple sensing junction;  
a stud mechanically coupled to said contact element by means of an insulating material  
and electrically isolated from said contact element by means of said insulating material,

a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud,

wherein said conductive element comprises a non-conductive portion, said non-conductive portion being in contact with said stud when said conductive element is disposed on said stud.

**Claim 23 (currently amended):** A thermocouple junction box comprising:

a metallic contact element electrically connected to a thermocouple sensing junction,

a stud mechanically coupled to said contact element by means of an insulating material and electrically isolated from said contact element by means of said insulating material,

a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud, wherein said conductive element comprises a non-conductive portion, said non-conductive portion being in contact with said stud when said conductive element is disposed on said stud, and

an insulating element independently movably disposed along said stud with respect to said conductive element, said insulating element electrically isolating said conductive element from said stud.

**Claim 24 (currently amended):** A thermocouple junction box comprising:

a metallic contact element electrically connected to a thermocouple sensing junction;

a stud mechanically coupled to said contact element by means of an insulating material and electrically isolated from said contact element by means of said insulating material, and

a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud, wherein said conductive element comprises a non-

conductive portion, said non-conductive portion being in contact with said stud when said  
conductive element is disposed on said stud, and

wherein said insulating element has an annular shape.

**Claim 25-30 (canceled)**

**Claims 31 (previously presented):** A thermocouple junction box as claimed in claim 9, wherein said cup is electrically connected to a thermocouple sensing junction.

**Claim 32 (previously presented):** A thermocouple junction box as claimed in claim 9, wherein said stud is threaded.

**Claim 33 (previously presented):** A thermocouple junction box as claimed in claim 9, wherein said cup comprises type K metal.

**Claim 34 (previously presented):** A thermocouple junction box as claimed in claim 9, wherein said stud comprises stainless steel.

**Claims 35 - 38 (cancelled)**

**Claim 39 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said stud is connected to said contact element by means of friction or interference fit with said insulating material or by means of oxide bonding.

**Claim 40 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said stud is connected to said contact element by means of brazing or welding to said insulating material.

**Claim 41 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said insulating material has an annular shape.

**Claim 42 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said contact element comprises type K metal.

**Claim 43 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said stud comprises stainless steel.

**Claim 44 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said contact element is cup-shaped.

**Claim 45 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said contact element is connected to a thermocouple sensing junction.

**Claim 46 (previously presented):** A thermocouple junction box as claimed in claim 23, wherein said stud is threaded.

**Claim 47 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said stud is connected to said contact element by means of friction or interference fit with said insulating material or by means of oxide bonding.

**Claim 48 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said stud is connected to said contact element by means of brazing or welding to said insulating material.

**Claim 49 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said contact element comprises type K metal.

**Claim 50 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said stud comprises stainless steel.

**Claim 51 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said contact element is cup-shaped.

**Claim 52 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said contact element is connected to a thermocouple sensing junction.

**Claim 53 (previously presented):** A thermocouple junction box as claimed in claim 24, wherein said stud is threaded.

HAYES SOLOWAY P.C.  
130 W. CUSHING STREET  
TUCSON, AZ 85701  
TEL. 520.882.7623  
FAX. 520.882.7643

175 CANAL STREET  
MANCHESTER, NH 03101  
TEL. 603.668.1400  
FAX. 603.668.8567